

Application No. 10/549,866
Paper Dated: February 19, 2008
In Reply to Office Action dated October 18, 2007
Attorney Docket No. 3135-052842

REMARKS

Applicant respectfully requests a reconsideration of the rejection of the claims. This Amendment amends independent claim 11 and dependent claims 12, 13, 16, 18, 19 and 20 in an effort to overcome the rejection to the claims under 35 U.S.C. §112. Claims 14, 15 and 17 remain as originally filed. A total of 10 claims remain in the case.

Claim Rejections under 35 U.S.C. §112

Claims 11-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More particularly, the Examiner's position is that the recited terms "track-like" and "plate-like" render the claims indefinite since it is unclear what particular structures or shapes would make such limitations.

In claim 11, the "track-like electrical resistor" is now defined as "the heating element includes at least one electrical resistor track". Similar recitations now appear in claims 13, 16, 18 and 19, where the phrase "track-like electrical resistor" has been replaced with the phrase "electrical resistor track".

In claim 12, the phrase "plate-like" has been deleted and the carrier is now defined as "the carrier is in the form of a plate". In claim 20, the phrase "plate-like" has been deleted and the support member is now defined as "the support member is in the form of a support plate".

Applicant submits that support for these recitations to the claims can be found in reading the instant specification and in the drawings. In view of the amendments made to these claims, Applicant respectfully requests that the rejection to the claims on this basis be withdrawn.

Claim Rejections under 35 U.S.C. §102(b)

Claims 11-13 and 16-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Loktev et al., U.S. Patent No. 6,353,707 (hereinafter "the Loktev reference"). It is the Examiner's position that the Loktev reference shows a heating assembly with a flexible plate-like carrier (73), at least one heating element made of thick film track-like electrical resistor (70), a plate-like support member (75) made of an insulating material, and an insulating layer (74) provided to the carrier layer by which the heating element is connected thereto, the support member engaging with the carrier at positions where there is

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no electrical resistor.

Applicant disagrees with the Examiner's position that claims 11-13 and 16-20 lack novelty over the Loktev reference. The Examiner states that the Loktev reference discloses a flexible plate-like carrier (73). However, in the Loktev reference it is explicitly described in column 8, lines 59-61 that the carrier (73) is formed by a *rigid* base made of ceramic or polymeric material. Moreover, the Loktev reference does not disclose that the insulating-like support member (75) would be substantially form-retaining, and hence would be made of a substantially rigid material. In the embodiment according to Figure 11 of the Loktev reference, to which the Examiner seems to refer in this rejection of the claims, no details are provided regarding the type of material used for the insulating support member (75). In column 7, lines 25-29 of the Loktev reference, it is disclosed that the insulation layers (24, 25), which the Examiner seems to be equating with the insulating support member (75) of Figure 11 of the Loktev reference, are made of plastic, leather or fabric. Hence, it seems more likely that the insulating support member (75) is flexible rather than rigid, which is implicitly supported by the Examiner in paragraph 5, page 3 of the Office Action. In the embodiment of Figure 11 of the Loktev reference, reinforcement of the device is provided by a metal casing (76). However, this casing (76) does not engage the carrier (73) on a side opposite to the heating surface as recited in claim 11 of the present application.

As stated in paragraph [0005] of the present application, one of the objects of the claimed invention is to provide a carrier whose thickness may be less than that of the prior art designs and that the strength of the heating assembly is substantially derived from the support member. In the claimed invention, the carrier is defined as being flexible and the support member is defined as being form-retaining or rigid in addition to the other recitations in the claimed invention of claim 11. The several advantages in having a thinner carrier compared to prior art designs are set forth in paragraph [0005] of the present application.

In essence, it is the Applicant's position that the specific combination of technical features recited in claim 11 of the present application is not disclosed in the Loktev reference, and that claim 11 is novel over the Loktev reference. Claims 12, 13 and 16-20 are believed to patentable in view of their dependency on a patentable claim 11.

Applicant respectfully requests that this rejection to the claims be withdrawn.

Claims 11-14 and 16-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al., U.S. Patent No. 4,574,186 (hereinafter "the Sakai reference").

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The Examiner's position is that the Sakai reference shows a heating assembly with a plate-like carrier made of plastics which inherently possesses some flexible characteristics, the carrier having raised and lowered parts, a thick-film track like resistor, a plate-like support member of an insulating material, an insulator layer provided to the carrier layer and the support member engaging with the carrier layer.

Applicant again disagrees with the Examiner that claims 11-14 and 16-20 lack novelty in view of the Sakai reference. It is clear from the claimed invention of claim 11 that the carrier is flexible while the support member is substantially form-retaining or rigid. Since the heating sheet disclosed in the Sakai reference is completely symmetrical as illustrated in Figure 2, this distinction between the carrier and the support member of the claimed invention as recited in claim 11 cannot be derived from the device of the Sakai reference. That is, the Sakai reference does not disclose a combination of a flexible carrier and a rigid support member in that the plastic sheets (2, 3) of the Sakai reference are made of the same material and have the same thickness.

Since sheets (2, 3) are made of plastic and in view of the Examiner's remark that plastic inherently possesses some flexible characteristics, the device of the Sakai reference would therefore have both a flexible carrier and a flexible support member. It is the Applicant's position that the heating sheet of the Sakai reference is also completely flexible in that the protective covers (6, 7) as stated in column 2, lines 5-7 of the Sakai reference, are relatively thin protective covers (6, 7) comprising a thermoplastic resin such as PVC, polyester or the like. This is contrary to the claimed invention of claim 11 wherein the carrier is flexible and the support member is form-retaining or rigid for the reasons given in paragraph [0005] of the present application.

Applicant again submits that the specific combination of technical features recited in claim 11 of the present application is not disclosed in the Sakai reference, and that claim 11 is novel over the Sakai reference. Claims 12-14 and 16-20 are believed to be patentable in view of their dependency on a patentable claim 11.

Applicant respectfully requests that this rejection to the claims be withdrawn.

Claims Rejection under 35 U.S.C. §103

Claims 11-20 stand rejected under 35 U.S.C. §103(a) as being obvious in view of Burdon et al., U.S. Patent No. 6,572,830 (hereinafter "the Burdon reference"). It is the Examiner's position that the Burdon reference shows the heating assembly claimed including

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a plate-like carrier formed by two carrier parts placed against each other defining a passage for a medium for heating, a heating element formed in a thick-film track like resistor and arranged on the carrier layer and a support member for engaging on the carrier layer. It is the Examiner's further position that this reference does not explicitly show that the carrier layer is flexible, and while the Burdon reference does not show that the carrier is flexible, this reference shows that it is known that a plastic material is used for the carrier and since a ceramic material can be flexible to a certain extent, it would have been obvious to one of ordinary skill in the art to provide a carrier made of any suitable material, including flexible material, as long as a suitable protection can be provided for the heated medium.

It is the Applicant's position that the claimed invention of claim 11 is not obvious in view of the Burdon reference, since there would not be any incentive for a skilled person to replace the rigid ceramic layers, i.e., the green sheets as disclosed in column 2, lines 24-30 of the Burdon reference with a flexible carrier and a form-retaining support member as recited in claim 11 of the present application.

Applicant respectfully requests that this rejection to the claims be withdrawn.

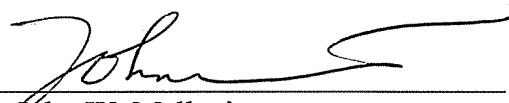
Conclusion

Claims 11-20 are believed to be patentable and therefore in condition for allowance. Applicant respectfully requests an early Notice of Allowance.

Respectfully submitted,

THE WEBB LAW FIRM

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